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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/671,117 | 09/28/2000 | Hideo Miyake | 1614.1082 | 8617 |

21171 7590 12/12/2003
STAAS & HALSEY LLP
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1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

KIM, HONG CHONG

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2186

DATE MAILED: 12/12/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

Office Action Summary

Application No.

09/671,117

Applicant(s)

MIYAKE ET AL.

Examiner

Hong C Kim

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13,15,17 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15,17,20 and 25-27 is/are allowed.
- 6) ☒ Claim(s) 13,21-24 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- ☐ Interview Summary (PTO-413) Paper No(s). _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Detailed Action

1. Claims 13, 15 17, 20-29 are presented for examination. This office action is in response to the RCE filed on 11/12/03.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 13, 21-24 and 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Biggs et al. (Biggs) US Patent 5,410,669.

As to claim 24, Biggs discloses the invention as claimed. Biggs discloses a method of controlling a computer having a main memory (col. 2 line 55) for which a first memory space of a memory map (col. 2 line 44, memory map reads on this limitation) and a cache memory (abstract) comprising: assigning a second address space (abstract lines 9-10) of the memory map (col. 2 lines 35-41, different portions of the memory map reads on this limitation) which separate from the first address space of the main memory for the cache memory when the cache memory is acting as a random access memory (col. 4 line 46 thru col 5 line 25).

As to claim 23, Biggs discloses the invention as claimed. Biggs discloses a system which

controls a cache memory (abstract) that is connected to a main memory (col. 2 line 55) with a first address space of a memory map (col. 2 line 44, memory map reads on this limitation) and capable of acting as a random access memory (Fig. 3 and col. 4 line 46 thru col 5 line 25) comprising the steps of: a determine unit which determines whether the cache memory is acting as the random access memory (col. 2 lines 35-41 and col. 4 lines 54+) and an assigning unit which assigns a second address space (abstract lines 9-10) of the memory map (col. 2 lines 35-41, different portions of the memory map reads on this limitation) which separate from the first address space of the main memory for the cache memory when the cache memory is acting as the random access memory (col. 4 line 46 thru col 5 line 25).

As to claims 13 and 22, Biggs discloses the invention as claimed. Biggs discloses a method of controlling a cache memory is connected to a main memory (col. 2 line 55) with a first address space of a memory map (col. 2 line 44, memory map reads on this limitation) and capable of acting as a random access memory (Fig. 3 and col. 4 line 46 thru col 5 line 25) comprising the steps of: determining whether the cache memory is acting as the random access memory (col. 2 lines 35-41 and col. 4 lines 54+) and assigning a second address space (abstract lines 9-10) of the memory map (col. 2 lines 35-41, different portions of a memory map reads on this limitation) which separate from the first address space of the main memory for the cache memory when the cache memory is acting as the random access memory (col. 4 line 46 thru col 5 line 25) and a bus control unit (Fig. 1 Ref. 20) .

As to claim 21, Biggs discloses the invention as claimed above. Biggs further discloses a computer including a main memory and a cache memory (Fig. 1 Ref. 14), the main memory having a first address space (Fig. 1 Ref. 30) and the cache memory being capable of acting as a RAM (abstract) comprising: a determination unit (col. 4 line 46 thru col 5 line 25), an assignment unit (col. 4 line 46 thru col 5 line 25), a bus control unit (Fig. 1 Ref. 20), a peripheral system (Fig. 1 Ref. 22), and access control unit (abstract).

As to claims 28-29, Biggs discloses the invention as claimed above. Biggs further discloses the first and the second address space is fixed in the memory map (col. 2 lines 35+).

Allowable Subject Matter

4. Claims 15, 17, 20, and 25-27 are allowed.

Response to Amendment

5. Applicant's arguments filed on 11/12/03 have been fully considered but they are not deemed to be persuasive.

Applicant's remarks that the references not teaching assigning first address space -- a second address space of a memory map, which is separate from the first address space of the main memory is not considered persuasive. Biggs discloses a method of controlling a cache

memory is connected to a main memory (col. 2 line 55) with a first address space of a memory map (col. 2 line 44, memory map reads on this limitation) and capable of acting as a random access memory (Fig. 3 and col. 4 line 46 thru col 5 line 25) comprising the steps of: determining whether the cache memory is acting as the random access memory (col. 2 lines 35-41 and col. 4 lines 54+) and assigning a second address space (abstract lines 9-10) of the memory map (col. 2 lines 35-41, different portions of the memory map reads on this limitation) which separate from the first address space of the main memory for the cache memory when the cache memory is acting as the random access memory (col. 4 line 46 thru col 5 line 25). Therefore broadly written claims are disclosed by the references cited.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

7. a shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) days from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 USC 133, MPEP 710.02, 710.02(b)).

8. When responding to the office action, Applicant is advised to clearly point out the

patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. § 1.111(c).

9. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hong Kim whose telephone number is (703) 305-3835. The Examiner can normally be reached on the weekdays from 8:30 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matt Kim, can be reached on (703) 305-3821.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

11. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to TC-2100:

| | |
|-------------|--------------------------------------------------------|
| Official | (703) 872-9306, New as of 8/4/2003 |
| After-Final | (703) 746-7238 |
| Official | (703) 746-7239 (for formal communications intended for |

entry)

Non-Official/Draft (703) 746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

HK

Primary Patent Examiner
December 9, 2003